I. AMENDMENT

Amendments to the Claims:

The following listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of producing a graft of muscle ~~tissue~~cells in damaged or diseased tissue of a human subject in need thereof, which comprises:

a) administering an effective amount of at least one mobilization factor to a donor who is HLA-matched to the subject and genetically non-identical to the subject in an amount and for a time sufficient to increase peripheral blood stem cells in the donor, wherein the mobilization factor is selected from the group consisting of Flt-3 ligand, VEGF, PDGF, EGF, FGF-1, FGF-2, IGF-1, MGDF, NGF, and HMG CoA reductase inhibitors;

[[a]]b) isolating stem cells from the peripheral blood sample of the donor by apheresis,

[[(b]]c) implanting a population of the isolated stem cells into the damaged or diseased tissue,

whereby implantation of the stem cells produces a graft [[of]]comprising muscle ~~tissue~~cells in the damaged or diseased tissue.

2-6. (Canceled)

7. (Original) The method of claim 1, which further comprises administering an engraftment factor concurrently with or following the implanting step in an amount and for a time sufficient to promote the engraftment of the cells in the subject.

8. (Original) The method of claim 7, wherein the engraftment factor is selected from the group consisting of GM-CSF, G-CSF, Il-1, IL-3, SCF, VEGF, Flt-3 ligand, Akt, hemeoxygenase, nitric oxide, 5-azacytidine, collagen, laminin, and fibronectin.

9. (Original) The method of claim 1, wherein the stem cells are expanded *ex vivo* prior to step (b).

10. (Previously Presented) The method of claim 1, which further comprises the step of fractionating the stem cells prior to implantation.

11. (Previously Presented) The method of claim 10, wherein the stem cells are fractionated by fluorescence-activated cell sorting.

12. (Previously Presented) The method of claim 10, wherein the stem cells are fractionated by density gradient centrifugation.

13. (Previously Presented) The method of claim 1, wherein the stem cells are implanted at the site of disease or damage.

14. (Currently Amended) A method of treating damaged or diseased striated muscle tissue of a human subject by producing a graft of muscle ~~tissue~~cells in the damaged or diseased striated muscle tissue, wherein said method comprises:

a) administering an effective amount of at least one mobilization factor to a donor who is HLA-matched to the subject and genetically non-identical to the subject in an amount and for a time sufficient to increase peripheral blood stem cells in the donor, wherein the mobilization factor is selected from the group consisting of Flt-3 ligand, VEGF, PDGF, EGF, FGF-1, FGF-2, IGF-1, MGDF, NGF, and HMG CoA reductase inhibitors;

[[a]]b) isolating stem cells from peripheral blood of [[a]]the donor by apheresis, and;

[[(b]]c) implanting a population of the isolated stem cells into said striated muscle tissue ~~in need of treatment~~of the subject,

whereby implantation of the stem cells produces a graft [[of]]comprising muscle ~~tissue~~cells in said striated muscle tissue.

15-16. (Canceled)

17. (Original) The method of claim 14, wherein the muscle tissue is ischemic.

18. (Original) The method of claim 14, wherein the muscle tissue is necrotic.

19. (Canceled)

20. (Original) The method of claim 14, wherein the striated muscle is myocardium.

21. (Original) The method of claim 14, wherein the striated muscle is skeletal muscle.

22-23. (Canceled)

24. (Original) The method of claim 14, wherein an effective amount of at least one engraftment factor is administered to the subject concurrently with or following the implanting step in an amount and for a time sufficient to promote engraftment of the implanted cells in the subject.

25. (Original) The method of claim 24, wherein the engraftment factor is selected from the group consisting of GM-CSF, G-CSF, IL-1, IL-3, SCF, VEGF, Flt-3 ligand, Akt, hemeoxygenase, nitric oxide, 5-azacytidine, collagen, laminin, and fibronectin.

26. (Original) The method according to claim 14, wherein the stem cells are expanded ex vivo prior to step (b).

27. (Previously Presented) The method of claim 14, which further comprises the step of fractionating the stem cells prior to implantation.

28. (Previously Presented) The method of claim 27, wherein the stem cells are fractionated by fluorescence-activated cell sorting.

29. (Previously Presented) The method of claim 27, wherein the stem cells are fractionated by density gradient centrifugation.

30. (Previously Presented) The method of claim 14, wherein the stem cells are implanted at the site of disease or damage.

31. (Currently Amended) A method of treating an ischemic organ in a human subject by producing a graft of muscle ~~tissue~~cells in said ischemic organ, wherein said method comprises:

a) administering an effective amount of at least one mobilization factor to a donor who is HLA-matched to the subject and genetically non-identical to the subject in an amount and for a time sufficient to increase peripheral blood stem cells in the donor, wherein the mobilization factor is selected from the group consisting of Flt-3 ligand, VEGF, PDGF, EGF, FGF-1, FGF-2, IGF-1, MGDF, NGF, and HMG CoA reductase inhibitors;

[[a]]b) isolating stem cells from peripheral blood of [[a]]the donor by apheresis, and;

[[(b]]c) implanting the isolated stem cells into the ischemic organ,

whereby the implanted stem cells produce a graft [[of]]comprising muscle ~~tissue~~cells in the ischemic organ.

32-34. (Canceled)

35. (Previously presented) The method of claim 31, wherein the ischemic organ is heart.

36-38. (Canceled)

39. (Original) The method of claim 31, which further comprises administering at least one engraftment factor to the subject concurrently with or following the implanting step in an amount and for a time sufficient to promote the engraftment of the cells in the subject.

40. (Original) The method of claim 39, wherein the engraftment factor is selected from the group consisting of GM-CSF, G-CSF, IL-1, IL-3, SCF, VEGF, Flt-3 ligand, Akt, hemeoxygenase, nitric oxide, 5-azacytidine, collagen, laminin, and fibronectin.

41. (Original) The method of claim 31, wherein the stem cells are expanded *ex vivo* prior to step (b).

42. (Previously Presented) The method of claim 31, which further comprises the step of fractionating the stem cells prior to implantation.

43. (Previously Presented) The method of claim 42, wherein the stem cells are fractionated by fluorescence-activated cell sorting.

44. (Previously Presented) The method of claim 42, wherein the stem cells are fractionated by density gradient centrifugation.

45. (Previously presented) The method of claim 31, wherein the cells are implanted at the site of ischemia.

46. (New) The method of claim 1, wherein the stem cells are further defined as hematopoietic stem cells.

47. (New) The method of claim 1, wherein the stem cells are mesenchymal stem cells.